

U. S. ENVIRONMENTAL PROTECTION AGENCY
(EPA) NEW ENGLAND OFFICE CUSTOMER CALL
CENTER: 1-888-372-7341

EPA is the federal agency responsible for pesticide regulation. No pesticide can be legally sold or used in the U.S. unless its label has an EPA registration number. EPA publications on pesticide related issues can be ordered by calling our Customer Call Center listed. More information is also available on the Internet at: www.epa.gov/region1.



**SOME TIPS ABOUT
PESTICIDES AND THEIR
ALTERNATIVES**

MARCH 2003



DO YOU REALLY NEED A PESTICIDE?

In your yard and garden, pests come in a variety of forms: weeds, insects, molds, and fungi to name a few. Pesticides provide relief from many pests, but they are not the only solution to every problem. Review this booklet before making your decision to use pesticides. Pesticides must be used with caution. If used or disposed of incorrectly, they can harm people, pets and plants, as well as pollute air, soil and water.

*“I have weeds in my
flower bed!”*

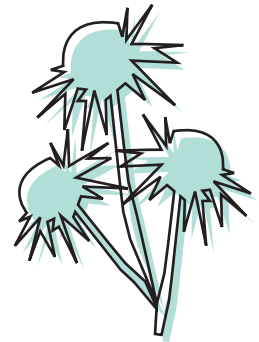
*“I have dandelions sprouting in
my front lawn!”*

*“My hemlocks have fuzzy
growths on the branches!”*

WHAT'S CAUSING YOUR PEST PROBLEM?

- ▶ Look over your entire landscape to see how widespread the problem may be. Is there a pattern? How extensive is the damage? How severely are individual plants affected? Is the entire plant damaged, or just one part such as leaves, stems, flowers, or roots?
- ▶ Consider other causes. Many problems appear to be caused by pests. For example, scorching of leaves may appear to be pest damage, however, the plant may just need additional water or fertilizer.
- ▶ Identify your pest accurately. If it is a pest problem, identification is the key to controlling it. Your local yard and garden store, library, and other resources in this brochure can help.

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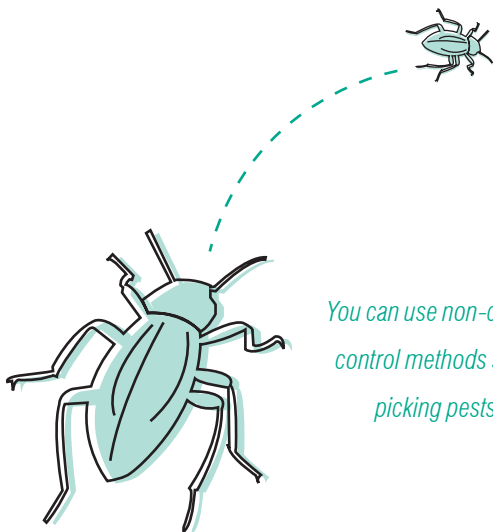
DO YOU NEED TO CONTROL PESTS?

The need to control outdoor pests varies. Some weeds in your garden, or some grubs in your lawn are tolerable, however, certain pests present serious threats. Some pests can damage human and animal health, like mosquitoes that may carry diseases. Contact with poison ivy causes an itchy rash for many people.

What are your options to manage your yard and garden? Whenever possible, use prevention techniques, such as allowing grass height to be over 2.5 inches. You can also use non-chemical pest control methods such as hand picking pests from leaves, otherwise known as cultural controls, a component of **IPM**.

INTEGRATED PEST MANAGEMENT (IPM)

A process of balanced use of cultural, biological and chemical procedures that are environmentally compatible. It is a philosophy of pest control that uses the best combination of these methods. IPM promotes a healthy environment, is cost effective and may offer longer-lasting results using fewer pesticides.



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CAN YOU PREVENT A PEST PROBLEM?

- ▶ Research which plants will survive best in your yard. Consider plants' tolerance to cold weather. Plants are listed according to hardiness zones, the higher the number, the lower the tolerance. USDA hardiness zones for New England: Southern NE: Zones 5-6, Northern NE: Zones 3-4.
- ▶ Consider your soil type: sandy, silty or clay? Use organic matter to adapt.
- ▶ Check the acidity of the soil (pH level). New England soils tend to be on the acidic side.
- ▶ Mulch your gardens to eliminate weeds and conserve soil moisture.
- ▶ Mow your lawn no shorter than 2.5 inches in height to shade competing weeds and discourage pests .
- ▶ Periodically rotate the position of plants in your garden to minimize the spread of disease.
- ▶ Inspect the condition of store bought plants.
- ▶ Locate plants carefully, consider the plant's tolerance to sun or shade.
- ▶ Know your plants' friends and enemies. There are many beneficial insects and organisms that are important to gardeners and farmers because they kill great numbers of pests. A few examples of these are: praying mantids, lacewing larvae, ladybugs and even some insect parasites.

Periodically rotate the position of plants in your garden to minimize the spread of disease.



WHAT TYPE OF PESTICIDE DO YOU NEED?

If pesticide use is necessary, here are some things to consider before you buy. There are several types of pesticides, with different names and uses.

- ▶ **INSECTICIDES** control insects such as mealybugs and grubs (beetle larvae).
- ▶ **HERBICIDES** control vegetation such as dandelions and crabgrass.
- ▶ **FUNGICIDES** control some plant diseases such as rose black spot and botrytis (gray mold).

SHOPPING TIPS

- ▶ Know the size of the area to be treated, take careful measurements.
- ▶ Purchase only the amount of product needed for the application.
- ▶ Calculate the correct amount, especially if the pesticide is a concentrate which must be diluted. Using too much of the active ingredient may damage your plants, cause harm to yourself, pets and the environment, however using too little product may not correct your pest problem. More is not better.
- ▶ Check for application equipment you need (such as a hand held sprayer). If you have it already, does it work properly? Do you need new hoses or nozzles?
- ▶ Pick up any personal protection equipment required such as gloves or goggles.

Before applying the pesticide, make sure there are no other people, including children or pets present, and remove any toys or garden equipment from the area to be treated.

HOW DO YOU APPLY AND HANDLE THE PESTICIDE SAFELY?

- ▶ Use common sense and realize the label may not tell what to do in all situations.
- ▶ Choose the correct form: dusts, sprays, granules, liquids.
- ▶ Measure accurately and have the correct tools available such as measuring cups or spoons. Use these tools only for pesticide measuring.
- ▶ Time your application correctly. Some pesticides affect a specific stage in the life cycle of a pest, making the timing of application very important. For example, a herbicide used for crabgrass control, will kill only the seedlings of crabgrass before they emerge from the soil, there is little benefit applying the herbicide after sprouting.
- ▶ Pay attention to other label instructions such as not mowing or watering too soon after application, however, some granular products must be watered in to be effective.
- ▶ Check the label to be sure the pesticide is approved for use on the vegetable or fruit plants being treated.
- ▶ Check the weather conditions before you start the application and do not spray in windy conditions.
- ▶ Never leave the pesticide unattended when using, especially near children and pets.
- ▶ Don't eat, drink or smoke while handling pesticides. Wash your face and hands after using the pesticide and before you smoke, eat or use the toilet.
- ▶ Clean up any spills immediately.



WHAT'S ON THE LABEL?

TARGET PEST

Listing of pest(s) controlled. Frequently more than one pest will be listed on the label.

FORM OF PESTICIDE

Products are sold as liquids, aerosols, granules, dusts, and wettable powders. Note: Many pesticides are sold as "ready to use". These products require no mixing or measuring, and may be easier to use.

INDOOR OR OUTDOOR

The label will tell you if the product must be used indoors or outdoors. Do not use garden pesticides indoors.

EPA REGISTRATION NUMBER

EPA has reviewed the product, it can be used according to label directions.

ACTIVE INGREDIENTS

The ingredient(s) that will control the target pest.

SIGNAL WORDS

Communicate the potential for making the user sick. Pesticides vary in their toxicity to humans. Most of the products for use in and around the home will have "caution" or "warning" as the signal word.

CAUTION

least harmful, but must be handled with care

WARNING

moderately hazardous

DANGER

very poisonous/irritating may have skull and crossbones signal

PRECAUTIONARY STATEMENTS

Tells if protective clothing, such as gloves or goggles, are required. Can also instruct you to keep children and pets away from the pesticide when in use, and the treated area once the application is complete.

ENVIRONMENTAL HAZARDS

Listing of possible sites of damage: water, birds, fish, plants, animals.

DIRECTIONS FOR USE

How to apply the product, where the product can be applied, how much to use, how to dispose and store the pesticide.

FIRST AID INSTRUCTIONS

Actions to take in an emergency situation. If you need to contact poison control or require medical assistance, have the label handy to help emergency personnel.

YOU HAVE APPLIED THE PESTICIDE, WHAT'S NEXT?

- ▶ Be patient! Depending on the type of pesticide product, it may take some time before control is seen. For certain herbicides, it may take several days before seeing the leaves of treated weeds yellow and curl.
- ▶ Watch for your results; create a diary to record your successes and failures.

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STORAGE AND DISPOSAL

STORAGE

- ▶ Pesticides should be stored in the original labeled container, covered tightly.
- ▶ Never store pesticides in the application equipment or in containers that held food or beverage.
- ▶ Do not store the product near feed, seed, heat sources or near flammable materials such as gasoline or oily rags.
- ▶ Temperature and humidity may affect pesticides. The label will give you specifics.
- ▶ Keep pesticides out of the reach of children and pets, preferably in a locked cabinet.

**USE PESTICIDES SAFELY!
READ THE LABEL!
IT'S THE LAW!**



DISPOSAL

- ▶ The label offers general disposal instructions.
- ▶ Containers should be rinsed three times.
- ▶ Potentially reusable containers should be punctured to prevent re-use.
- ▶ Old pesticides should be disposed of, they may no longer be effective or safe to use.
- ▶ Improper disposal can lead to health issues for humans and pets, and environmental contamination.
- ▶ NEVER pour pesticides down a drain, toilet or curbside catch basin.
- ▶ NEVER re-use pesticide containers for any purpose.
- ▶ NEVER put pesticides in containers used for food purposes.
- ▶ Disposal problems can be prevented by buying only the amount needed to do the job.
- ▶ Contact your local government, state agriculture or environmental agency about household hazardous waste collection programs.

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FOR FURTHER INFORMATION

- ▶ Your local garden center, library, and bookstore are resources for information on gardening, outdoor pest management or assistance in problem diagnosis.
- ▶ Community based garden clubs, botanical gardens, and horticultural societies regularly share information and may have staff available to answer questions.
- ▶ Surf the web! Type in key words, and explore!
- ▶ National Pesticide Telecommunications Network (NPTN): 1-800-858-PEST(7378). This is a 24 hour hotline for assistance in emergencies and information about safety, health and environmental effects, spill clean-up and disposal procedures and referrals.

POISON CONTROL CENTERS FOR NEW ENGLAND

Provide help in pesticide poisonings. Have the pesticide label with you if you call. All across the USA the poison control phone number is: 800-222-1222

Connecticut: 800-343-2722

Massachusetts: 800-682-9211

Maine: 800-442-6305

Rhode Island: 800-682-9211

New Hampshire: 800-562-8236

Vermont: 877-658-3456



*Your local garden center,
library, and bookstore are
resources for information on
pest management.*

State pesticide regulatory agencies in New England provide information about: pesticide regulations, investigate consumer complaints and possible pesticide violations, spill clean-up and disposal.

STATE REGULATORY AGENCIES IN NEW ENGLAND

Connecticut Dept. of Environmental Protection:
860-424-3369

Maine Board of Pesticides Control: 207-287-2731

Massachusetts Pesticide Bureau: 617-626-1700

New Hampshire Dept. of Ag. Markets and Food:
603-271-3550

Rhode Island Dept. of Env. Management:
401-222-2781

Vermont Plant Industry, Lab and Consumer
Assurance: 802-828-2431

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If pesticide use is one of your options, here are some things to consider before you buy.

